notice informs a competing carrier that Bell Atlantic completed the installation of the service requested by the particular order, which provides notice to the carrier that it has responsibility for the customer's care and may begin billing the customer for service.[592] Until the competing carrier receives a completion notice, the carrier does not know that the customer is in service, and cannot begin billing the customer for service or addressing any maintenance problems experienced by the customer.[593] Thus, untimely receipt of order completion notices directly impacts a competing carrier's ability to serve its customers at the same level of quality that Bell Atlantic provides to its retail customers.[594] Accordingly, the Commission has instructed a section 271 applicant to demonstrate that it provides competing carriers with order completion notices in a timely and accurate manner.[595] The BOC must minimize any delay between the actual installation of service and the competing carrier's receipt of an order completion notice.[596]

188. We base our finding that Bell Atlantic provides sufficient order completion notification on Bell Atlantic's provision of both "billing completion" and "work completion" notices to competing carriers. Bell Atlantic sends billing completion notices when an order is recorded as completed in Bell Atlantic's billing systems.[597] Specifically, after Bell Atlantic's Service Order Processor (SOP) passes order completion information to Bell Atlantic's billing systems (CRIS), the billing records are updated overnight and billing completion notices are sent the following day.[598] In August 1999, Bell Atlantic began providing "work completion" notices (also referred to as a "provisioning completion" or "field completion" notice) to inform carriers of the completion of the work associated with an order.[599] For orders requiring physical work, when

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Bell Atlantic's conclusions that a retail analogue does not exist, and in absence of a credible retail analogue in the record, we find for purposes of this application that Bell Atlantic must demonstrate that it provides completion notification sufficient to allow an efficient competitor a meaningful opportunity to compete.

592 *See Second BellSouth Louisiana Order*, 13 FCC Rcd at 20685; *BellSouth South Carolina Order*, 13 FCC Rcd at 615; *Ameritech Michigan Order*, 12 FCC Rcd at 20650 n.512. *See also Performance Measurements NPRM*, 13 FCC Rcd at 12847.

593 *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20685-86.

594 *First BellSouth Louisiana Order*, 13 FCC Rcd at 6265 (indicating that "order status notices have a direct impact on a new entrant's ability to serve its customers, because they allow competing carriers to monitor the status of their resale orders and to track the orders both for their customers and their own records.").

595 *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20686. *See also First BellSouth Louisiana Order*, 13 FCC Rcd at 6265; *BellSouth South Carolina Order*, 13 FCC Rcd at 615.

596 *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20685-86; *BellSouth South Carolina Order*, 13 FCC Rcd at 615.

597 *See* Bell Atlantic Miller/Jordan Decl. at para. 50; Bell Atlantic Dowell/Canny Decl. at para. 46 ("For every order completed in the Billing system, a completion notice has been sent.").

598 Bell Atlantic Dowell/Canny Decl. at para. 46.

599 Bell Atlantic Dowell/Canny Decl. at para. 48; Bell Atlantic Miller/Jordan Decl. at para. 51; *see also* New York Commission Comments at 49; *NYPSC Additional Guidelines Order* at 16 (noting that in Carrier Working Group meetings during August and September Bell Atlantic offered to notify competing carriers when the work completion has been entered into its service order processing system).

the technician reports order completion to Bell Atlantic's Work Force Administration (WFA), it generates a completion in SOP, which automatically notifies the competing carrier of the work completion.[600] For orders not requiring physical work, SOP is automatically updated during overnight processing and generates a work completion notice the following morning. Both types of completion notices are sent to the carrier over the same interface used to submit the order.[601]

189. With respect to performance data, Bell Atlantic measures billing completion notification timeliness, or the time that elapses from when an order is recorded as completed in Bell Atlantic's billing systems until the time Bell Atlantic distributes a billing completion notice to the carrier.[602] The New York Commission, based on the Carrier-to-Carrier collaborative proceeding, established a performance standard requiring Bell Atlantic to return 95 percent of billing completion notices by noon the day following order completion in its billing system.[603] We find this standard to be a reasonable and appropriate measure of whether Bell Atlantic provides timely notification that a service order has been recorded as complete in Bell Atlantic's billing systems. For both resale and unbundled network elements, Bell Atlantic reports timely return of billing completion notices for 100 percent of carriers' orders from June through September 1999.[604] In addition, KPMG verified that Bell Atlantic returned 99 percent of the billing completion notices for its test orders on time.[605] KPMG also found that less than one percent of the 3,000 completion notices lacked complete information.[606] In light of recent Bell Atlantic performance and KPMG's findings, we reject AT&T's allegation that Bell Atlantic does not deliver timely completion notices.[607]

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600 Bell Atlantic Dowell/Canny Decl. at para. 48.

601 *Id.* at para. 47; Bell Atlantic Miller/Jordan Decl. at paras. 50, 51. Although Z-Tel complains that it does not receive affirmative notification from Bell Atlantic over the Web GUI interface, we find that this functionality is available using the EDI interface. *See* Z-Tel Comments at 16, 19-20.

602 Bell Atlantic Dowell/Canny Decl. at para. 46; Attach. B. at 26-27 (describing metrics OR-4-01, OR-4-02, OR-4-03).

603 Bell Atlantic Dowell/Canny Decl. at para. 47; Bell Atlantic Miller/Jordan Decl. at para. 50; *see also NYPSC Guidelines Order* at 2 (adopting, after input from Bell Atlantic and competing carriers in the Carrier-to-Carrier collaborative, a general performance standard of 95 percent as a reasonable and achievable level that will permit competing carriers to enter the local exchange market).

604 Bell Atlantic Dowell/Canny Decl. Attach. D at 74, 79, 86, 91, 98, 102 (metric OR-4-02 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 3, 7 (metric OR-4-02 for September 1999).

605 KMPG Final Report at POP5 IV-114-15 (excluding approximately ten percent of orders where KPMG did not receive a completion notice due to a problem occurring primarily in January 1999 that Bell Atlantic later resolved). *See* New York Commission Comments at 49.

606 KPMG Final Report at POP5 IV-116. *See also* New York Commission Comments at 49.

607 *See* AT&T Crafton/Connolly Aff. at para. 260 (claiming that AT&T received only 79 percent of billing completion notices on time for AT&T orders that were eligible to receive such notices in September); AT&T Crafton/Connolly Reply Aff. at para. 83; AT&T Pfau/Kalb Reply Decl. at para. 56 (indicating that AT&T received only 72 percent of billing completion notices on time for eligible October orders). AT&T does not demonstrate that the delay is attributable to Bell Atlantic's systems.

190. We note with approval that the New York Commission recently required Bell Atlantic to augment its reporting of the timeliness of billing completion notification by also reporting the timeliness of work completion notification.[608] Specifically, Bell Atlantic must report work completion notification timeliness and the average time that elapses between work completion and billing completion, as well as the percentage of orders where this interval exceeds one and five days.[609] For the timeliness of work completion notification, based on the Carrier-to-Carrier collaborative, the New York Commission established a performance standard requiring Bell Atlantic to deliver 95 percent of work completion notices by noon the day following completion of the work associated with the order.[610] We find this standard a reasonable and appropriate measure of work completion notification timeliness. Although Bell Atlantic has not begun reporting these intervals, in this case we do not find that the lack of this performance data warrants a finding of noncompliance with this checklist item.[611] Nonetheless, we expect that Bell Atlantic will promptly comply with the standard established by the New York Commission.

191. Based on the record evidence, we reject commenters' allegations that Bell Atlantic frequently fails to provide completion notices at all, and that the missing notices are not captured in the performance reporting.[612] Although we do not discount the importance of receiving an

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608 *See NYPSC Additional Guidelines Order* at 16-17; *Performance Measurements NPRM*, 13 FCC Rcd at 12845, 12847 (tentatively concluding that incumbent LECs must measure the average completion notice interval, or "the amount of time it takes an incumbent LEC to send a competing carrier notice that work on an order has been completed" by "subtracting the date and time that it completed the work from the date and time a valid completion notice leaves its OSS interface."). *See also NYPSC Permanent Rule Order* App. at 21-22; *NYPSC Guidelines Order*, App. 3 at 1 (directing parties in the Carrier-to-Carrier collaborative to consider measuring the time of completion of the physical work).

609 *NYPSC Additional Guidelines Order* at 17.

610 *Id.*

611 We note that Bell Atlantic's pre-ordering interfaces enable carriers to view a pending order's installation status to determine whether the physical work on an order has been completed. *See infra* at Section V.B.1.c. *See also* Bell Atlantic Dowell/Canny Decl. at para. 48; Bell Atlantic Miller/Jordan Decl. at para. 21. Moreover, Bell Atlantic notifies competing carriers by phone when hot cut and trunk orders are completed. We therefore do not consider AT&T's and MCI WorldCom's allegations that Bell Atlantic does not deliver timely work completion notices particularly probative to approval of this application. *See* AT&T Crafton/Connolly Aff. at para. 259 (claiming that AT&T received only 66 percent of work completion notices on time for AT&T orders that were eligible to receive such notices in September); MCI WorldCom Kinard Decl. at paras. 16-17 (indicating that notification of provisioning completions "still takes too long.").

612 *See* AT&T Crafton/Connolly Aff. at paras. 259, 260 (claiming that AT&T did not receive a work completion notice for 23 percent, nor a billing completion notice for 17 percent, of eligible September orders); AT&T Pfau/Kalb Reply Decl. at paras. 55, 56 (indicating that AT&T did not receive work completion notices for 19 percent of orders submitted in the first half of October and failed to receive billing completion notices for 24 percent of such orders); MCI WorldCom Kinard Decl. at para. 18 (claiming that MCI WorldCom failed to receive billing completion notices, but speculating that the addition of provisioning completion notices may improve the situation); MCI WorldCom Reply at 9-11; MCI WorldCom Lichtenberg/Sivori Reply Decl. at 9-12 (indicating that MCI WorldCom failed to receive completion notices for a number of August, September and October orders). MCI WorldCom admits that for half of the August and September orders that are missing billing completions, it did receive a work completion notice. MCI WorldCom Lichtenberg/Sivori Reply Decl. at 10.

order completion notice for every order, commenters do not demonstrate that the missing notices are attributable to Bell Atlantic's systems. Rather, based on the present record, we find that the failure to receive a notice may be attributable to either Bell Atlantic or the interfaces and systems of competing carriers. As such, we find that the commenters' allegations are insufficient to rebut Bell Atlantic's evidentiary showing. If in the future we find evidence of a systematic and widespread failure of Bell Atlantic to deliver completion notices to competing carriers, we are prepared to take appropriate enforcement action.

192. Furthermore, we are encouraged that Bell Atlantic will provide fielded complex completion notifications in April 2000.[613] This functionality will enable competing carriers to detect and correct provisioning errors early.[614] Although Bell Atlantic has yet to complete implementation of this functionality, AT&T admits that the decision to defer implementation until April 2000 came about by an August 1999 vote of Bell Atlantic and competing carriers in a change management collaborative meeting, with AT&T dissenting.[615] Accordingly, we note that the delay in implementing this functionality is attributable in part to competing carriers.

g. Provisioning

193. In this section we conclude that Bell Atlantic provisions competing LEC customers' orders for UNE-P and resale POTS in substantially the same time and manner as it is provisioning its own retail customers.[616] Our conclusion is based on the totality of the evidence before us. First, we find that Bell Atlantic's systems are set up to provide parity of service for provisioning wholesale and retail orders. Second, we conclude that evidence from the Carrier to Carrier metrics shows that Bell Atlantic is missing fewer competitive LEC customer appointments and providing equal or better quality installations, compared to appointments for its own retail customers. Third, we consider evidence concerning Average Completed Intervals but conclude that, due to flaws in this data, as evidenced by the Gertner/Bamberger study[617] and other evidence, such data should be accorded less weight.

(i) Background

194. In the *Ameritech Michigan Order*, the Commission first addressed

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[613] Bell Atlantic Miller/Jordan/Zanfini Reply Decl. at para. 52 (indicating that Bell Atlantic "is prepared to implement this functionality in April"). A fielded complex completion notification takes information about a completed order and assigns it to specific fields. AT&T Comments at 22.

[614] AT&T states that it can use fielded completion notices to confirm that Bell Atlantic provisioned the order accurately and that the customer received the correct services and features. AT&T Crafton/Connolly Aff. at paras. 159, 162.

[615] AT&T Crafton/Connolly Aff. at para. 165 n.87. According to AT&T, carriers agreed to the postponement because of concerns "about the effects of the implementation on the Y2K moratorium." *Id.*

[616] We discuss loop provisioning below. *See infra* Section V.D.2.a.

[617] The Gertner/Bamberger study was submitted to us by Bell Atlantic. It examines the reasons for the differences in the observed Average Completed Intervals for competing carriers orders as compared to orders for Bell Atlantic's retail customers. For a discussion of the study, *see infra* paras. 203-210.

nondiscriminatory access to OSS provisioning functions in the context of a BOC's showing of compliance with checklist item 2.[618] The Commission concluded that Average Installation Interval[619] data are critical to determining whether a BOC provides equivalent access to OSS because such data are "direct evidence of whether [a BOC] takes the same time to complete installations for competing carriers as it does for [itself], which is integral to the concept of equivalent access."[620] The Commission also recognized, however, that data showing average installation intervals, on its face, may erroneously suggest discriminatory conduct by a BOC because of underlying flaws in the manner in which the data is calculated.[621] Such flaws may result in average installation intervals that appear to be longer for competing carriers than for a BOC, even though the BOC may be provisioning services for competing carriers in a nondiscriminatory manner. In the *Ameritech Michigan Order*, therefore, the Commission asked Ameritech to explain any underlying flaws in its average installation data by, for instance: (1) excluding transactions for customers that requested due dates beyond the first available due date; and (2) disaggregating by service types to account for the impact that different types of services may have on the average installation interval.[622] At the same time, the Commission found that data on Missed Appointments (Due Dates Not Met) could be helpful "to explain any inconsistencies between the average installation intervals for [a BOC] and other carriers."[623] The Commission explained that evidence that due dates are offered to a BOC's retail units and to competing carriers on a nondiscriminatory basis has probative value, although it found that Ameritech had not sufficiently explained its proposal for submitting such evidence for the Commission to determine whether it would be an adequate substitute for actual installation interval data.[624]

195. In the *OSS Performance Measures NPRM*, the Commission tentatively concluded that the Average Completion Interval and Percentage of Due Dates Missed metrics are most probative in assessing whether an incumbent LEC processes and completes orders from competing carriers in the same time frame in which it processes and completes its own retail orders.[625] The Commission tentatively concluded that both of these measurements are necessary

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618 *Ameritech Michigan Order*, 12 FCC Rcd at 20612-58.

619 We will use "Average Installation Interval," "Average Completed Interval," and "Average Completion Interval" interchangeably for purposes of this discussion.

620 *Ameritech Michigan Order*, 12 FCC Rcd at 20633-34..

621 *Id.* at 20632-33.

622 *Id.* at 20633.

623 *Id.*.

624 *Id.* The Commission also stated that data on the percentage of installations completed within a certain number of days may be useful, even though such data could mask discriminatory conduct. *See id.* at 20631-32.

625 *Performance Measurements NPRM*, 12 FCC Rcd 12842-43. The Average Completion Interval compares the average length of time it takes an incumbent LEC to complete orders for competing carriers with the average length of time it takes to complete comparable incumbent LEC retail orders. The Percentage of Due Dates Missed seeks to determine whether the agreed-upon due dates for order completion are equally reliable for orders placed by competing carriers and orders placed by an incumbent LEC's end user customers. *Id.*

to ensure that the incumbent LECs are not able to mask discrimination and, therefore, are necessary to provide a complete picture of an incumbent LEC's ability to complete orders for competing carriers in a nondiscriminatory manner.[626]

(ii) Discussion

196. For the reasons set forth below, we conclude that Bell Atlantic provisions UNE-P and resale orders to competitors in substantially the same time and manner that it provisions these orders to itself. To demonstrate parity in the provision of UNE-P and resale service orders, Bell Atlantic provides two performance measurements, the Average Completed Interval and Percentage of Missed Appointments, and the retail analogues for these measurements.[627]

197. *Provisioning Processes.* Based on the evidence in the record, we conclude that Bell Atlantic demonstrates that it provides nondiscriminatory access to its provisioning processes. Specifically, we find that Bell Atlantic provides competitive LECs and its retail operations with equivalent access to information on available service installation dates. For non-dispatch orders,[628] Bell Atlantic asserts that it makes available the same set of standard intervals for competing carriers and its retail representatives.[629] A competitive LEC's customer representative can, for instance, offer a customer "same day" service for services such as Call Waiting, just as a Bell Atlantic retail representative can.[630] For orders requiring dispatch of a Bell Atlantic service technician, competitive LECs have access to the same Smarts Clock system as do Bell Atlantic retail representatives.[631]

198. Our conclusion is buttressed by KPMG's finding that overall, Bell Atlantic's

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626 *Id.* at 12844.

627 Bell Atlantic also provides other performance measurements, including Percent Completed within "X" Days, Percent Missed Appointments, Average Delay Days, and Percent Installation Troubles reported within "X" Days.

628 Non-dispatch refers to orders for which no field work was needed for provisioning by a Bell Atlantic technician. Dispatch orders require a technician to be dispatched in order to fulfill the order. Bell Atlantic Dowell/Canny Decl. at para. 59; *see also Performance Measurements NPRM*, 12 FCC Rcd 12841 n.71.

629 Bell Atlantic Dowell/Canny Decl. at para. 63. Standard intervals are the minimum number of days that Bell Atlantic offers for the provision of service for orders not requiring dispatch. They vary according to the type of products and services being ordered. For example, the product Remote Call Forwarding has a standard interval of two days, while Call Waiting can receive same day service (if ordered before 3:00), and Caller ID has a standard interval of four days. Therefore, if a customer orders Caller ID, Bell Atlantic says that the earliest it can provision the customer is four days later. Bell Atlantic Dowell/Canny Decl. at para. 63 & Attach. B, App. L at 143.

630 Bell Atlantic Dowell/Canny Dec. at para. 63.

631 Smarts Clock is a calendar of available appointment dates for orders requiring dispatch. On the calendar a red mark indicates that Bell Atlantic has reached its capacity for that day; a yellow mark indicates that Bell Atlantic is close to reaching capacity, but is still accepting due date requests; a green mark indicates that Bell Atlantic has sufficient capacity that the carrier's due date request for that day will likely be accepted. Bell Atlantic Dowell/Canny Decl. at para. 63; Bell Atlantic Dowell/Canny Reply Decl. at para 53.

provisioning processes for competing carriers are provided at parity with its retail operations.[632] As part of its independent test of Bell Atlantic's OSS, KPMG conducted a thorough assessment of Bell Atlantic's provisioning systems.[633] KPMG examined the performance of these systems in analyzing and routing orders, handling problems with orders, coordinating the work of different centers, loading translations into the switch for non-designed services (e.g., POTS, ISDN), and scheduling the work needed for dispatch and designed services. KPMG interviewed Bell Atlantic personnel, reviewed documentation, observed daily operations, and reviewed sample order files, in twelve centers involved in provisioning.[634] KPMG concluded that Bell Atlantic satisfied all test criteria for the provisioning function.[635]

199. We also find that Bell Atlantic provides requesting carriers with the same level of confidence as its own retail operations that the due date promised to customers will be the actual due date that the BOC assigns to the order when it is processed.[636] Some commenters nevertheless argue that Bell Atlantic does not provide nondiscriminatory treatment in its provision of confirmed due dates.[637] We acknowledge that there is evidence that some orders receive confirmed due dates later than was requested. For example, KPMG found that 9.7 percent of its test orders submitted through the EDI interface received confirmed due dates later than was requested.[638] In addition, as discussed more fully below, evidence submitted by Bell Atlantic suggests that the average confirmed due date for UNE-P orders was later than the average requested due date by an average of 0.18 days, or 4.3 hours, for June-August 1999.[639] We do not

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[632] The only test criterion to receive a "Satisfied with Qualifications" concerned the assignment of skilled personnel to the Regional CLEC Coordination Center (RCCC). It received this qualification because "Bell Atlantic did not replicate the retail processes at the RCCC. However, KPMG determined that equal functionality existed." KPMG Final Report at POP11 IV-282 to IV-284.

[633] According to KPMG, "[t]he focus of the evaluation [was] on the activities downstream from order entry through service activation. The objective of this test [was] to evaluate the degree to which the provisioning environment supporting wholesale orders is on parity with provisioning for Bell Atlantic New York retail orders." KPMG Final Report at POP11 IV-258.

[634] KPMG Final Report at POP11 IV-258 to IV-269.

[635] KPMG Final Report at POP11 IV-284.

[636] *BellSouth First Louisiana Order*, 13 FCC Rcd at 6280-81 (concluding that BOCs must provide equivalent access to due dates); *see also BellSouth Second Louisiana Order*, 13 FCC Rcd at 20667; *BellSouth South Carolina Order*, 13 FCC Rcd at 629-30; *Ameritech Michigan Order*, 12 FCC Rcd at 20639-41.

[637] AT&T Crafton/Connolly Aff. at paras. 74-5; Covad Conley/Poulicakos Decl. at para. 24; MCI WorldCom Lichtenberg/Sivori Decl. at para. 68; CoreComm Comments at 13-14; Prism Comments at 9 n.16. Both AT&T and MCI WorldCom claim that they normally request longer intervals than the standard interval because of the problem of getting the due date they request. MCI WorldCom Lichtenberg/Sivori Decl. at para. 68; AT&T Pfau/Kalb Aff. at para. 143.

[638] KPMG also found that 2.4 percent of its test orders received confirmed due dates earlier than requested. KPMG Final Report at POP5 IV-113 & Table IV-5.16.

[639] Bell Atlantic provides a study that examined the reasons why Average Completed Intervals for competing carriers might be longer. This study demonstrates that the average completed interval is longer than the average

find, however, that this warrants a finding of checklist noncompliance. We find that the 4.3-hour average disparity between requested and confirmed due dates is not large enough to be competitively significant. We believe consumers are much more sensitive to whether their service is being installed on the arranged appointment date, as opposed to whether their appointment is set a little later after the originally requested time.[640] We note that because 90 percent of KPMG's EDI UNE-P orders received confirmed due dates no later than requested, KPMG determined that it was satisfied that Bell Atlantic provisions confirmed due dates consistent with KPMG's requested due dates on its test orders.[641] Thus, we agree with the New York Commission that Bell Atlantic provides competing carriers with confirmed service installation dates in a nondiscriminatory manner.[642]

200. *Due Dates Met*. The record evidence also demonstrates that Bell Atlantic is meeting the service installation dates for competitive LEC customers at higher rates than for its own retail customers. The Percent Missed Appointment metric measures the percentage of confirmed appointments that Bell Atlantic has missed due to its own fault. Specifically, the data demonstrate that, over a four month period, Bell Atlantic has consistently met a higher percentage of installation appointments for competing carriers than for itself.[643]

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requested interval, for UNE-P orders. Bell Atlantic Gertner/Bamberger Decl. at Table 2. As we discuss below, we assume that the confirmed due dates are the same as the completed dates. Bell Atlantic Gertner/Bamberger Reply Decl. at 1 n.1.

[640] As the Commission has stated before, we would be concerned if we saw that confirmed due dates were set significantly later than was requested. *See BellSouth Second Louisiana Order*, 13 FCC Rcd at 20667; *Ameritech Michigan Order*, 12 FCC Rcd at 20639-41; *BellSouth First Louisiana Order*, 13 FCC Rcd at 6280-81; *BellSouth South Carolina Order*, 13 FCC Rcd at 629-30.

[641] KPMG was "Satisfied" with orders submitted through the GUI, and "Satisfied with Qualifications" for orders submitted through the EDI interface. KPMG Final Report at POP2 IV-38-9, POP5 IV-113. No reason for the qualification designation for EDI orders was given, although KPMG indicated in its comments that the 88 percent of orders having confirmed due dates the same as the due date requested was a key factor in its analysis. KPMG Final Report at POP5 IV-113.

[642] The New York Commission states that "[t]he record before [them] does not suggest that [competing LECs] have been having problems receiving intervals for platform orders as requested or within the standard intervals set forth in the Carrier-to-Carrier guidelines. MCI WorldCom acknowledged that because it requested longer intervals for certain UNE-P products, [Bell Atlantic's] overall average interval offered and completed metrics may be longer than they otherwise would be. Moreover, [Bell Atlantic's] good missed appointment performance demonstrates that it is meeting requested intervals." New York Commission Comments at 69 n.1.

[643] For example, in September Bell Atlantic missed appointments for 0.03 percent of competing carriers' non-dispatch UNE-P orders, versus 0.79 percent of its own corresponding retail orders. For dispatch orders, it missed 8.9 percent of competing carriers' appointments and 12.1 percent of its own retail appointments. The four month average (June through September) missed appointment rate for resale non-dispatch orders is 0.04 percent for competing carriers, versus 0.70 percent for Bell Atlantic customers; and for resale dispatch orders it is 7.26 percent for competing carriers versus 10.32 percent for its own retail customers. For UNE platform non-dispatch orders it is 0.04 percent for competing carriers versus 0.70 percent for its retail customers; and for dispatch orders it is 6.85 percent for competing carriers versus 10.32 percent for its retail customers. Bell Atlantic Dowell/Canny Decl. Attach. D; Bell Atlantic Dowell/Canny Reply Decl. Attach. C.

201. In addition, the evidence demonstrates that Bell Atlantic performs service installations for competitive LEC customers at a higher level of quality than for its own retail customers. The metrics "Percent Installation Troubles Reported Within 7 Days" and "Percent Installation Troubles Reported Within 30 Days" show the quality of Bell Atlantic's service installations by measuring customer troubles reported within 7 and 30 days, respectively. According to these metrics, a much smaller percentage of competitive LEC customers experiences difficulties after installation, than retail customers.[644]

202. *Average Completed Interval.* In concluding that Bell Atlantic provisions resale and UNE-P orders for competing carriers on a nondiscriminatory basis, we accord little weight to data evidencing the average intervals in which resale and UNE-P installations are completed. The record contains performance data that, standing alone, shows that competing carriers experience longer average completed intervals than do Bell Atlantic retail customers. Although these disparities are statistically significant,[645] we conclude that Bell Atlantic has presented sufficient evidence to demonstrate that the disparity between wholesale and retail average completed intervals is not the result of discriminatory conduct, but rather is the result of factors outside of its control and unrelated to the timeliness and quality of Bell Atlantic's provisioning of resale and UNE-P to competing carriers. As such, we agree with Bell Atlantic that the Average Completed Interval data is flawed and therefore, should be accorded little weight in our analysis here.

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[644] For example, for resale POTS orders, in September only 0.74 percent of competitive LEC customers reported difficulties within the first seven days of installation, compared to 3.15 percent of Bell Atlantic customers. Bell Atlantic Dowell/Canny Decl. Attach. D; Bell Atlantic Dowell/Canny Reply Decl. Attach. C.

[645] For June through September, resale POTS orders, dispatch and non-dispatch, business and residential, generally showed a monthly difference of a half day to a full day longer to fulfill for competitive LEC customers, and the monthly differences were usually statistically significant, with the exception of July for residential dispatch orders, for which the difference was not statistically significant. The four month average (June-September) difference for resale POTS orders is 1.18 days for dispatch business, 0.80 days for dispatch residential, 0.51 days for non-dispatch business, and 0.87 days for non-dispatch residential. Bell Atlantic Dowell/Canny Decl. Attach. D; Bell Atlantic Dowell/Canny Reply Decl. Attach. C. The difference in times was greater for UNE platform orders, for the same time period, and were always statistically significant. Competitive LEC UNE platform non-dispatch orders took from 0.8 to 2.0 days longer for June through August, averaging more than four months (June-September 1999) 2.43 days for competing carrier orders versus 1.09 days for Bell Atlantic orders, for a difference of 1.34 days. Meanwhile, UNE platform dispatch orders took from 2.6 to 3.6 days longer, averaging over the four months 6.49 days for competing carriers orders versus 3.26 days for Bell Atlantic orders, for a difference of 3.23 days. Bell Atlantic Dowell/Canny Decl. Attach. D; Bell Atlantic Dowell/Canny Reply Decl. Attach. C. The Carrier to Carrier report also contains data about how many orders were completed within "X" number of days for Bell Atlantic and competitive LEC customers, with metrics provided for "X" ranging from one to six days (the "Percent Completed within 'X' Days" metrics). Bell Atlantic Dowell/Canny Decl. at para. 61. These metrics paint a similar picture to the average completed intervals data, of competitive LEC orders having longer completion times than Bell Atlantic retail orders. The differences for this measure for UNE platform orders were statistically significant, for the months of June through September. Another interval metric, which measures the time it takes for Bell Atlantic to provide service to customers, is average delay days for missed appointments. This metric, which measures how long it takes to complete service to a customer if the appointment has been missed, generally shows large and statistically significant differences in performance in favor of Bell Atlantic retail customers, for both UNE and resale orders. For example, the average delay days for UNE platform orders for September for Bell Atlantic retail customers was 4.76 days, while for competitive LEC customers it was 6.66 days.

203. According to Bell Atlantic, the disparity between Average Completed Intervals for competitive LECs and Bell Atlantic is substantially caused by three factors unrelated to the timeliness of its service installations: (1) competitive LECs are choosing installation dates beyond the first installation date made available by Bell Atlantic's systems (the "W-coding" problem);[646] (2) for non-dispatch orders, competitive LECs are ordering a relatively larger share of services and UNEs that have long standard intervals (the "order mix" problem);[647] and (3) for dispatch orders, competitive LECs are ordering a relatively larger share of services in geographic areas that are served by busier garages and, as a result, reflect later available due dates (the "geographic mix" problem).[648] In conjunction with its Average Completed Interval data, Bell Atlantic submits a study by Dr. Gertner and Dr. Bamberger (Gertner/Bamberger study) to support its claim that its Average Completed Interval data is flawed for these reasons.[649] We note that although AT&T criticized some aspects of the Gertner/Bamberger study, no commenter disagrees with Bell Atlantic's assertions that its Average Completed Interval data is flawed.[650] By submitting a study to substantiate its claims that the Average Completed Interval data is flawed, we note that Bell Atlantic's application is quite different from BellSouth's *Louisiana II* application. In that application, although BellSouth's data on its face consistently supported a general conclusion that BellSouth provided services to competing carriers' customers in twice the amount of time that it

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[646] Although Carrier to Carrier metrics are intended to exclude orders placed by competitive LECs that request due dates later than they are offered, this is not happening due to a coding error on the part of competing carriers. For example, if the requested due date (by the competitive LEC or by a retail customer) is later than the offered due date, then the order is supposed to be coded with an "X". If the customer accepts the offered due date, then the order should be coded with a "W." All orders coded with an "X" are excluded from the interval metrics. However, if a competitive LEC fails to mark orders that request later due dates with an "X", they will be counted in the metrics, and are likely to increase the reported completion intervals because of their longer intervals. Bell Atlantic has found that in some categories large numbers of competitive LEC orders are incorrectly coded as "W." Bell Atlantic Dowell/Canny Decl. at paras. 65-66. We note that in March 2000, Bell Atlantic's systems will begin to automatically code orders requesting later due dates with an "X," thus eliminating this bias to the data. Bell Atlantic Dowell/Canny Decl. at para. 67.

[647] Bell Atlantic Dowell/Canny Decl. at para. 62. For non-dispatch orders, the offered intervals a competitive LEC may choose depend on the service order. As described above, both Bell Atlantic representatives and competitive LECs are given the same list of standard intervals. The standard interval varies by service requested. So, for example, if a customer (competitive LEC or Bell Atlantic retail) asks for Call Waiting on an existing line, Bell Atlantic offers same day service if the order is placed before 3:00 pm. If the customer wants Caller ID, the standard interval offered is 4 days. Therefore if a large proportion of competitive LEC customers order Caller ID, while most Bell Atlantic retail customers are only ordering Call Waiting, completion intervals will be much longer for competitive LEC customers than for Bell Atlantic retail customers.

[648] Bell Atlantic Dowell/Canny Decl. at paras. 64-65; Bell Atlantic Dowell/Canny Reply Decl. at para. 53. For installations of service requiring dispatch of a Bell Atlantic service technician, Bell Atlantic argues that the average completed interval data for competitive LECs is skewed because it includes a larger share of orders in areas that are served by busier garages and, as a result, reflect later due dates available from Smarts Clock. Bell Atlantic argues that the dates received from Smarts Clock can vary by garage location, since busier garages tend to offer later dates. Therefore, geographic location of the customer can affect the completion intervals for dispatch orders. Bell Atlantic Dowell/Canny Reply Decl. at para. 53.

[649] Bell Atlantic Gertner/Bamberger Decl.

[650] AT&T Pfau/Kalb Aff. at paras. 140-50.

provided services to its retail customers, BellSouth offered no analysis or other evidence that purported to explain why these data might be flawed or to supplement BellSouth's showing on OSS provisioning.[651]

204. First, we find that Bell Atlantic demonstrates that its average completed interval data for competing carriers reflects a disproportionate share of orders with installation dates beyond the first available date offered by Bell Atlantic (the "W-coding" problem). If competing carriers request later installation dates more often than Bell Atlantic, then installation intervals for those competing carriers will be, on average, longer than those for Bell Atlantic customers. Although Bell Atlantic relies upon competing carriers to "code" orders that include requests for longer-than-average provisioning intervals so that they can be excluded from the average completed interval measures,[652] the Gertner/Bamberger study establishes that competing carriers "miscode" a significant percentage of non-dispatch orders, causing those requests to be erroneously included in the performance data.[653] Although the Gertner/Bamberger study does not address dispatched orders, we agree with Bell Atlantic that it is likely that competing carriers similarly miscode dispatched orders for which an appointment date after the first available date is sought,[654] which would result in longer average provisioning intervals.[655] Furthermore, no commenter seriously challenges Bell Atlantic's claim that competing carriers frequently request installation dates beyond the first available date. Indeed, AT&T and MCI claim that they normally request longer intervals than the standard interval.[656]

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651 *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20683.

652 Bell Atlantic Application, App. A, Dowell/Canny Decl. at para. 66.

653 *See* Bell Atlantic Dowell/Canny Decl. at para. 66; Bell Atlantic Gertner/Bamberger Reply at paras. 3-4 & Table 1. The Gertner/Bamberger study used a randomly chosen sample of "W" coded non-dispatch 1-5 line resale POTS and UNE platform orders to examine the impact of incorrect "W" coding on the completion intervals for non-dispatch orders. The study examined 300 orders for June, 800 for July, and 800 for August. Bell Atlantic Gertner/Bamberger Decl. at 1 n.2. For each order in the sample, the study compared the requested interval with the standard interval appropriate to that order based on the service requested, to determine if the order was improperly coded as "W." The study then examined the impact of the improperly coded orders on the average requested interval. In addition the study compared the average requested intervals with the average completed intervals, to see if, on average, Bell Atlantic was filling the orders within the time requested. Bell Atlantic Gertner/Bamberger Decl. at paras. 7-12 & n.2.

654 *See* Bell Atlantic Bamberger/Gertner Decl. at para. 12.

655 We note that the findings of the Gertner/Bamberger study are applicable to the Average Completed Interval data for dispatch orders, even though the Gertner/Bamberger study examined only non-dispatch orders for resale services and UNE-P. Just as the differences between wholesale and retail Average Completed Interval times for non-dispatch orders are likely to be inflated by these factors, so will dispatch orders, and average completed intervals for other types of dispatch orders, such as UNE loops. We note that other metrics, such as Percent Completed in "X" Days, and Average Delay Days, will also be affected in a similar manner by the factors identified in the study.

656 MCI WorldCom says it sets a default due date of four days for migrations, and seven days for new orders for UNE platform orders. MCI WorldCom Lichtenberg/Sivori Declaration at para. 68. AT&T states that it requests five day intervals for UNE platform orders, even if the standard interval is only two days. AT&T Pfau/Kalb Aff. at para. 143.

205. Second, we also find persuasive Bell Atlantic's argument that its average completed interval data for competing carriers' non-dispatch orders reflects a disproportionate share of order types with longer-than-average standard intervals (the "order mix" problem). The Gertner/Bamberger study shows that competing carriers order a relatively larger share of non-dispatch orders with longer-than-average standard intervals, which would result in longer average completed intervals. The study compared the average standard intervals for resale, UNE-P, and Bell Atlantic retail orders, for all orders and for orders within the standard interval (correctly "W" coded orders). The study found that for some months, the average standard interval was longer for wholesale customers than for retail customers.[657] A difference in average standard intervals could cause the average completed intervals to be different, even if Bell Atlantic was provisioning orders in a nondiscriminatory fashion, and only properly coded orders were included in the Average Completed Interval metric. The observed difference in standard intervals supports the argument that there are differences in order mixes between wholesale and retail orders that will affect the average standard intervals and, therefore, the Average Completed Intervals for wholesale and retail orders.[658]

206. With respect to dispatch orders, we are also persuaded by Bell Atlantic's argument that competing carriers experience longer completed intervals than its retail customers because the automatic appointment clock used to schedule available appointments offers longer average appointment intervals in some geographic areas than in others (the "geographic mix" problem). As a result, reported average completed intervals will vary depending upon where competitive carriers are ordering service.[659] Average completed intervals for dispatch resale services and UNE-P would be longer if a high proportion of those competing carriers provide service to geographic areas with busy garages.

207. We disagree with the Department of Justice and AT&T that the gap between requested and completed intervals that Gertner and Bamberger's study found for wholesale UNE-P orders is evidence of discrimination.[660] Specifically, the study found that the average requested interval was 1.39 days while the average completed interval was 1.57 days for orders in which competitors requested the standard interval over a three month period. Thus, the study finds a difference of 0.18 days longer in the provisioning intervals of wholesale orders.[661] AT&T argues

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[657] For example, in August the average standard interval for UNE-P orders that were within the standard interval was 1.84 days, while the average standard interval for retail orders was only 1.22 days, a difference of 0.62 days. Bell Atlantic Gertner/Bamberger Reply Decl. at paras. 5-6 & Table 2.

[658] Gertner and Bamberger also point out that customer-caused delays in completing orders that missed the due date can also lengthen the Average Completed Interval for wholesale orders. They analyzed the data looking for orders more than three days late, which they considered to be "outliers." They found that for August customer delays increased the Average Completed Intervals for platform and resale orders. Meanwhile there was little or no impact on June or July's intervals. Bell Atlantic Gertner/Bamberger Reply Decl. at paras. 7-9 & Table 3.

[659] Bell Atlantic Dowell/Canny Rep. Decl. at para. 53.

[660] Department of Justice Evaluation at 33 n.89; AT&T Pfau/Kalb Aff. at para. 143.

[661] Bell Atlantic Gertner/Bamberger Decl. at paras. 12-14 & Table 2. For resale orders within the standard interval, Gertner and Bamberger found that the average completed interval of 0.99 days was less than the average requested interval of 1.09 days. Bell Atlantic Gertner/Bamberger Decl. at Table 2. Gertner and Bamberger

that this difference in the provisioning of UNE-P orders is likely to be statistically significant and, therefore, is evidence of discrimination.[662] Both the Department of Justice and AT&T express concern about the even larger difference of 0.52 days, reported in August for UNE-P orders.[663]

208. Gertner and Bamberger note, however, that "requested" due dates are not the same as "confirmed" due dates.[664] Because Bell Atlantic is missing very few appointments,[665] almost all orders should have completion dates that are the same as their confirmed due dates. Therefore the reported gap between requested and completed intervals is very likely caused by some orders being given later confirmed due dates than was requested. As discussed above, we do not believe that a delay of 0.18 days, or 4.3 hours, in the appointment date impairs the ability of a competing carrier to meaningfully compete. We therefore agree with Bell Atlantic that even though the difference may be statistically significant, it has no practical competitive significance.[666]

209. In view of the conclusions of the Gertner/Bamberger study and other evidence submitted by Bell Atlantic that its average completed interval data for competing carriers is flawed, we find unpersuasive the claims of competing carriers that this data demonstrates that Bell Atlantic provisions resale services and UNE-P in a discriminatory manner. Although we continue to believe that average completed intervals can be probative in determining whether Bell Atlantic provisions resale services and UNE-P in a nondiscriminatory manner, where, as here, a BOC has made an adequate showing that the data on average completed intervals is flawed, we must consider other evidence in making our parity determination.[667] Specifically, as described above, we find that Bell Atlantic provides competing carriers with equivalent access to its process for selecting service installation dates as well as its provisioning processes overall and with timely confirmed service installation dates. In addition, we find that Bell Atlantic consistently meets a higher percentage of installation appointments for competitors than for itself. Accordingly, based on the totality of the evidence submitted by Bell Atlantic, we conclude that Bell Atlantic demonstrates that it is provisioning resale services and UNE-P to competing carriers in substantially the same time and manner as for its retail operations.

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conclude that Bell Atlantic generally met the Standard Intervals if competitive LECs request service within the Standard Interval. Bell Atlantic Gertner/Bamberger Decl. at paras. 12-14.

662 AT&T Pfau/Kalb Aff. at paras. 140-43.

663 The average completed interval for UNE-P orders requesting the standard interval was 2.36 days, while the average requested interval was 1.84 days, for a difference of 0.52 days. Bell Atlantic Gertner/Bamberger Decl. at Table 4; Department of Justice Evaluation at 33 n.89; AT&T Pfau/Kalb Aff. at para. 143.

664 Bell Atlantic Gertner/Bamberger Reply Decl. at 1 n.1.

665 Only 0.03 percent in September according to the Carrier to Carrier metrics. Bell Atlantic Dowell/Canny Reply Decl. Attach. C.

666 Bell Atlantic Gertner/Bamberger Reply Decl. at paras. 10-11; Bell Atlantic Dowell/Canny Reply Decl. at para. 54. We also note that the New York Commission reports that competing LECs have not been having difficulty getting the intervals they request. New York Commission Comments at 69 n.1.

667 We said in the *Ameritech Michigan* Order that information about missed appointments can explain inconsistencies in the Average Completed Intervals. See *Ameritech Michigan Order*, 12 FCC Rcd 20633.

210. Our conclusion is not undermined by KPMG's examination of Average Completed Interval data, which found an unexplained half day difference between the Average Completed Interval for its own test non-dispatch UNE-P orders and Bell Atlantic's own retail orders, and for which KPMG found it was Not Satisfied.[668] Indeed, our own analysis of the average completed interval data for non-dispatch orders for the months of June-August 1999 for competing carriers and Bell Atlantic using the results of the Gertner/Bamberger study revealed an unexplained half day difference as well.[669] Like the New York Commission, however, we do not believe that a half day difference in provisioning intervals is competitively significant.[670] Rather, we find that given that there will always be some limited manual processing of competitors' orders, even where, as discussed below, such processing is considered "timely" as measured by performance metrics,[671] such manual intervention will inevitably affect provisioning intervals. Under the circumstances of this application, where Bell Atlantic has shown that it is meeting the rest of the relevant provisioning performance metrics, we decline to find that Bell Atlantic is provisioning resale and UNE-P orders in a discriminatory fashion.

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[668] KPMG did some analysis of the data for January for non-dispatch Average Completed Intervals, and after accounting for geography, number of lines, type of order, and date of completion, still found an unexplained difference of 0.56 days. It found a similar difference in the closely related Average Offered Interval metric. KPMG Final Report at POP8 IV-193 to IV-194. KPMG determined that with respect to its analysis of the metrics, it was "Not Satisfied," because of these detected differences. KPMG Final Report at POP8 IV-202. Bell Atlantic argues that the KPMG analysis did not fully account for the impact of differing order types, because KPMG's correction for "order types" only took into account whether orders were "N" (new), "T" (to another address), and "C" (change existing features), and not the various services ordered, with their differing standard intervals. Bell Atlantic Dowell/Canny Reply Decl. at para. 51.

[669] The adjusted differences were calculated as follows. The Bell Atlantic retail Average Completed Interval was taken from the Carrier to Carrier metrics. To obtain the competing carrier's adjusted intervals for June, July and August, the study's reported Average Completed Interval for only orders within the standard interval (which corrects for the "X" coding problem) were used (top line of Table 4 in the Gertner/Bamberger Decl.), and then adjusted for the order mix problem by taking the difference between the wholesale and retail average standard intervals provided in Gertner/Bamberger's Reply (right column of Table 2). We found that the adjusted differences in Average Completed Intervals for non-dispatch UNE-P orders is 0.43 days for June, 0.36 days for July, and 0.67 days for August. These differences should all be statistically significant, with z-scores less than -7. The differences for resale are more difficult to determine, because the Carrier to Carrier data is broken down by business and residential, while the study aggregates the two together. However, the Carrier to Carrier data for business and residential can be combined to yield aggregate results. If this is done, and the competing carrier data is then adjusted for the factors discussed above, the differences come out to less than a third of a day for both business and residential orders for July and August, and competing LECs have shorter intervals for June. For the details of our analysis, *see infra* Appendix C. In future applications, we expect applicants to correct their Average Completed Interval data for factors outside the BOC's control, as the Commission recommended in *Ameritech Michigan Order* and as we have done here using data from the study. *Ameritech Michigan Order*, 12 FCC Rcd at 20633.

[670] The New York Commission states "the remaining unexplained difference of a half day does not warrant a conclusion that Bell Atlantic is offering discriminatory service." New York Commission Comments at 50.

[671] The Carrier-to-Carrier guidelines require the return of 95 percent of mechanized order confirmation and rejection notices within two hours of submission to Bell Atlantic, and 95 percent of manually processed order confirmation and rejection notices for orders under ten lines within 24 hours of submission. Bell Atlantic Dowell/Canny Decl. Attach. B at paras. 17, 20.

h. Maintenance & Repair

211. We conclude that Bell Atlantic demonstrates that it provides nondiscriminatory access to maintenance and repair OSS functions.[672] First, we find that Bell Atlantic has deployed the necessary interfaces, systems, and personnel to enable requesting carriers to access the same maintenance and repair functions that Bell Atlantic provides to itself. We then conclude that Bell Atlantic's systems allow carriers to access those functions in substantially the same time and manner as Bell Atlantic's retail operations. We further find that Bell Atlantic restores service to customers of competing carriers in substantially the same time and manner that it restores service to its own customers. Finally, we conclude that Bell Atlantic performs maintenance and repair work for customers of competing carriers at substantially the same level of quality that it provides to its own customers.

(i) Background

212. As part of its obligation to provide nondiscriminatory access to OSS functions, Bell Atlantic must provide requesting carriers with nondiscriminatory access to its maintenance and repair systems.[673] A competing carrier that provides service through resale or unbundled network elements remains dependent upon the incumbent LEC for maintenance and repair. Because Bell Atlantic performs analogous maintenance and repair functions for its retail operations, it must provide competing carriers access that enables them to perform maintenance and repair functions "in substantially the same time and manner" as Bell Atlantic.[674] Equivalent access ensures that competing carriers can assist customers experiencing service disruptions using the same network information and diagnostic tools that are available to Bell Atlantic personnel.[675] Without equivalent access, a competing carrier would be placed at a significant competitive disadvantage, as its customer would perceive a problem with Bell Atlantic's network as a problem with the competing carrier's own network.[676]

(ii) Discussion

213. *Functionality*. We conclude that Bell Atlantic offers maintenance and repair interfaces and systems that enable a requesting carrier to access all the same functions that are available to Bell Atlantic's retail representatives.[677] Specifically, Bell Atlantic offers requesting

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672 *See* New York Commission Comments at 53 (finding that competing carriers have nondiscriminatory access to Bell Atlantic's maintenance and repair systems). Maintenance and repair issues specific to unbundled local loops are discussed in checklist item 4 below.

673 *See Second BellSouth Louisiana Order*, 13 FCC Rcd at 20692; *Ameritech Michigan Order*, 12 FCC Rcd at 20613, 20660-61.

674 *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20692-93.

675 *Id.* at 20692.

676 *See id.*

677 *See id.* at 20693; *BellSouth South Carolina Order*, 13 FCC Rcd at 593-94; *Ameritech Michigan Order*, 12 FCC Rcd at 20617. The Commission has previously indicated that, without electronic access for competing

carriers access to its maintenance and repair systems through a Web-based GUI electronic interface.[678] Inquiries submitted over the Web GUI feed into the Repair Trouble Administration System (RETAS),[679] which automatically directs the transaction to Bell Atlantic's back office maintenance and repair systems.[680] The Web GUI enables carriers to perform the same functions that Bell Atlantic's retail operations perform, including: (i) conduct a mechanized loop test (for resale and the UNE platform but not for unbundled loops),[681] (ii) create a trouble ticket, (iii) determine the status of a trouble ticket, (iv) modify a trouble ticket, (v) request cancellation of a trouble ticket, and (vi) request a trouble report history.[682] The interface can be used for all local exchange services.[683] Bell Atlantic also staffs a "Regional CLEC Maintenance Center" to support wholesale maintenance and repair services.

214. Commercial usage and extensive testing by KPMG show that Bell Atlantic provides requesting carriers with nondiscriminatory access to maintenance and repair

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carriers, the BOC's ability to correct trouble reports while on line with the customer would be a "crucial competitive advantage." *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20698.

678 *See* Bell Atlantic Miller/Jordan Decl. at para. 68. In the past, Bell Atlantic also offered carriers access to an Electronic Interface Format (EIF) application-to-application interface, and one carrier presently is using that interface to access maintenance and repair functions.

679 The main RETAS application is a routing tool that accepts trouble administration messages, routes requests to the appropriate back end systems and returns electronic responses. KPMG Final Report at M&R1 V-7. The New York Commission describes RETAS as a "web-based interactive system that allows a [competing carrier], upon receiving a report of trouble from a customer, to test the line and, if appropriate, arrange for a Bell Atlantic-NY technician to repair the problem," as well as to monitor progress on the trouble report and learn when the problem was corrected. New York Commission Comments at 50-51.

680 Bell Atlantic's back office maintenance and repair systems include: StarMEM for memory feature fixes; Work Force Administrator (WFA) for processing special services trouble tickets and trouble history inquiries; Loop Maintenance Operating System (LMOS) for processing POTS trouble tickets and trouble history; Mechanized Loop Test (MLT) for conducting a POTS mechanized loop test; and Switched Access Remote Test System (SARTS) for conducting a special services test. *See* Bell Atlantic Miller/Jordan Decl. Attach. E.

681 Bell Atlantic submits that competing carriers have more automatic functionality than Bell Atlantic's retail representatives. For example, in conducting a mechanized loop test, a Bell Atlantic retail representative must assess the circuit type, geographic region and destination, and manually submit the test to the proper back end system, whereas RETAS automatically sends a competing carrier's test to the proper system. Similarly, a Bell Atlantic representative must interpret the highly technical test results, but the system automatically analyzes the test results and issues a recommendation for competing carriers. Bell Atlantic Miller/Jordan Decl. at para. 72.

682 Bell Atlantic Application at 45 n.40; Bell Atlantic Miller/Jordan Decl. at para. 68. In response to a KPMG finding that competing carriers did not have the same access as Bell Atlantic's retail representatives to extended trouble history for a given line, Bell Atlantic added that functionality to RETAS in June 1999. Bell Atlantic Miller/Jordan Decl. at para. 72. Since June, competing carriers can access the three most recently reported trouble tickets on any given line. *Id.*

683 Although the Web GUI can be used to report trouble associated with unbundled loops, carriers can also submit unbundled loop trouble tickets manually. Bell Atlantic Miller/Jordan Decl. at para. 75. We reject as unsupported by the record evidence Prism's mere assertion that it must manually submit trouble tickets because RETAS cannot be used for unbundled network elements. *See* Prism Comments at 13.

functionality. Thus, we find that Bell Atlantic demonstrates that its maintenance and repair interface is operationally ready and capable of handling reasonably foreseeable demand levels. In terms of commercial usage, carriers perform more than 40,000 maintenance transactions per month.[684] Furthermore, after evaluating Bell Atlantic's systems, performance, processes, documentation, network surveillance, work center operations and work coordination for the delivery of competing carriers' maintenance and repair services, KPMG verified the functionality of Bell Atlantic's maintenance and repair systems for competing carriers and found them at parity with Bell Atlantic's retail systems and processes.[685] KPMG also verified that Bell Atlantic's retail systems were capable of handling 500 transactions per hour (or 4,000 in an eight-hour day).[686]

215. We disagree with AT&T's assertion that Bell Atlantic must demonstrate that it provides an integratable, application-to-application interface for maintenance and repair.[687] Bell Atlantic is obligated to provide maintenance and repair functionality in substantially the same time and manner that it provides the functionality to itself.[688] Although the Commission has indicated that a BOC would afford carriers a more complete opportunity to compete by offering an integratable, application-to-application maintenance and repair interface, we also found that the lack of integration does not necessarily constitute discriminatory access, provided that the BOC otherwise demonstrates that it provides equivalent access to its maintenance and repair functions.[689] Accordingly, although it presently does not offer an application-to-application interface,[690] we find that Bell Atlantic satisfies its checklist obligation by demonstrating that it

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[684] *See* Bell Atlantic Application at 45; Bell Atlantic Miller/Jordan Decl. at 74 (indicating 47,000 transactions in July).

[685] *See* KPMG Final Report at M&R1 V-13-23 (RETAS functional and parity evaluation); M&R5 V-75-77 (parity evaluation).

[686] Although Bell Atlantic submitted average volume per month on a region-wide rather than state-wide basis, KPMG determined that Bell Atlantic could handle approximately 500 transactions per hour with acceptable response time performance. *See* KPMG Final Report at M&R2 V-36-37, 38-43. *See also* KPMG Final Report at M&R3 V-47-55 (scalability review of system infrastructure, gateways and resources).

[687] AT&T Comments at 26-27; AT&T Crafton/Connolly Aff. at paras. 169-71. Although one carrier is accessing maintenance and repair functions through the application-to-application EIF interface, we find that Bell Atlantic does not make that interface available generally to any requesting carrier, and therefore do not rely on it for purposes of our analysis.

[688] *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20695-96.

[689] *Id.*

[690] In conjunction with AT&T and MCI WorldCom, Bell Atlantic is developing an application-to-application interface for local service maintenance and repair functions that employs electronic bonding. Bell Atlantic Miller/Jordan Decl. at para. 73. *See also* Bell Atlantic Miller/Jordan/Zanfini Reply Decl. at para. 56 (expressing willingness to work with other interested carriers in developing electronic bonding). Aside from one function (mechanized loop testing for local POTS, which Bell Atlantic is in the process of implementing), Bell Atlantic represents that there are no application-to-application industry standards for local services maintenance and repair. Bell Atlantic Application at 45; Bell Atlantic Miller/Jordan Decl. at para. 73; Bell Atlantic Reply at 36; Bell Atlantic Miller/Jordan/Zanfini Reply Decl. at para. 56. Without citing any specific standard, AT&T asserts generally that industry standards for reporting maintenance and repair troubles using electronic bonding have been in effect since 1992 and that Bell Atlantic is required to implement them pursuant to its commitments in the Bell

offers competitors substantially the same means of accessing maintenance and repair functions as Bell Atlantic's retail operations.

216. We also find that Bell Atlantic permits competing carriers to open trouble tickets immediately on recently-completed service orders.[691] In light of an early exception noted by KPMG, Bell Atlantic implemented a function in RETAS in April that permits competing carriers to enter a trouble ticket immediately after completion of a service order.[692] KPMG verified that the enhancement would resolve its concerns about a lag time in creating trouble tickets.[693] As a result, Bell Atlantic claims that competing carriers can enter a trouble ticket electronically at an earlier point than its retail representatives.[694] Although Covad asserts generally that it cannot open trouble tickets on new loops for 24 hours,[695] we are unable to determine whether their allegation post-dates Bell Atlantic's system enhancement. In any event, we find that the record evidence does not support Covad's allegation.

217. *Response Times.* We further conclude that Bell Atlantic's maintenance and repair interface and systems process trouble inquiries from competing carriers in substantially the same time and manner as Bell Atlantic processes inquiries concerning its own retail customers.[696] To compete effectively in the local exchange market, competing carriers must be able to diagnose and process customer trouble complaints with the same speed and accuracy that Bell Atlantic diagnoses and processes complaints from its retail customers. A slower process can lead to customer perception that the competing carrier is a less efficient service provider than the BOC.

218. We base our finding of nondiscriminatory OSS processing time on Bell Atlantic's performance data. Although it had previously reported maintenance and repair response times according to absolute benchmark standards, Bell Atlantic started reporting response times according to a performance standard of "parity plus four seconds" in its September Carrier-to-

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Atlantic-NYNEX merger proceeding. AT&T Crafton/Connolly Aff. at para. 171 n.90. Without reference to any specific standard, the record is insufficient for us to verify AT&T's claim. Moreover, AT&T does not represent that the unspecified 1992 industry standard is for local exchange services.

691 New York Commission Comments at 51; Bell Atlantic Reply at 37 n.41. We note that RCN complains that Bell Atlantic does not permit competing carriers to submit a single trouble ticket when a loop-transport combination experiences service disruption. *See* RCN Comments at 2, 9-10. We do not find that this practice warrants a finding that Bell Atlantic fails to comply with this checklist item.

692 New York Commission Comments at 51; Bell Atlantic Reply at 37 n.41; Bell Atlantic Miller/Jordan/Zanfini Reply Decl. at para. 59. The new functionality enables RETAS to check SOP to validate the presence of recently-completed service order.

693 *See* KPMG Final Report M&R5 V75-76.

694 Bell Atlantic Miller/Jordan/Zanfini Reply Decl. at para. 59.

695 Covad Comments at 31-32. Covad claims that it is unable to open a trouble ticket for at least 24 hours after the due date because neither the Regional CLEC Coordination Center nor the Regional CLEC Maintenance Center will take responsibility for an improperly provisioned loop.

696 *See* New York Commission Comments at 53.

Carrier report.[697] Given the additional security measures required for competing carriers' access to Bell Atlantic's maintenance and repair systems,[698] we find that this "parity plus four seconds" standard is a reasonable and appropriate measure of whether Bell Atlantic processes maintenance and repair requests for competing carriers in substantially the same time that it processes those requests for its own retail operations.

219. Performance data from June through September 1999 indicates that Bell Atlantic met the parity standard each month for modifying trouble tickets, failed to meet the standard for creating trouble tickets, and had mixed results for canceling a trouble ticket and conducting a POTs test.[699] With respect to conducting a POTS trouble test, which is the most common maintenance and repair function, Bell Atlantic processed requests from competing carriers faster than requests from its retail operations in June, July and September, with a slight deviation from the standard in August.[700] For creating a trouble ticket, although Bell Atlantic deviated from the standard each month,[701] we find that the deviations were slight and do not warrant a finding that

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[697] Response time, or the number of seconds from the issuance of a query to the receipt of a response by the requesting carrier, is measured for competing carriers using actual response times reported by the RETAS gateway and for Bell Atlantic retail using actual response times reported by its Caseworker retail trouble report system. *See* Bell Atlantic Dowell/Canny Decl. Attach. B at 50. The New York Commission formerly required Bell Atlantic to report maintenance and repair response times using absolute standards derived from the KPMG test results. *See* New York Commission Comments at 52-53; *NYPSC Permanent Rule Order* App. at 49 (recommending the temporary use of KPMG response times as the performance standards while Bell Atlantic investigates response times experienced by KPMG, competing carriers and its retail operations). In July and August 1999, with the exception of one measurement, Bell Atlantic failed to meet these absolute standards either for itself or for competing carriers. *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 85, 97 (metrics MR-1-01, MR-1-03, MR-1-04, MR-1-06 for July and August 1999). Upon further review, the New York Commission found that the KPMG-based absolute standards did not measure each transaction processing step and were not "representative of real world" experience. New York Commission Comments at 52-53. Accordingly, based on a consensus reached by Bell Atlantic and competing carriers in the Carrier-to-Carrier collaborative, the New York Commission adopted a modified performance standard of "parity plus not more than four seconds." *NYPSC Additional Guidelines Order* at 10-11. Under this modified standard, Bell Atlantic will report maintenance and repair OSS response times according to the same performance standard that applies to its reporting of pre-ordering OSS response times. In light of Bell Atlantic's retail operations, we agree that the parity standard is a more appropriate measure of maintenance and repair response time than the absolute benchmarks.

[698] *See supra* para. 146; KPMG Final Report at M&R1 V-7-8 (describing the layers of security for RETAS to limit unauthorized use and to preserve data confidentiality).

[699] Bell Atlantic Dowell/Canny Decl. Attach. D at 73, 85, 97 (metrics MR-1-01, MR-1-03, MR-1-04 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 2 (metrics MR-1-01, MR-1-03, MR-1-04 for September 1999). Bell Atlantic does not submit statistical analyses for response times, therefore we review any deviation from the performance standard.

[700] Bell Atlantic Dowell/Canny Decl. Attach. D at 73, 85, 97 (metric MR-1-06 for June, July, August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 2 (metric MR-1-06 for September 1999). Although, using the "parity plus four seconds" standard, Bell Atlantic processed test requests 24.32 seconds faster for its retail operations in August (82.40 seconds for retail compared with 110.72 seconds for competing carriers), Bell Atlantic achieved parity in September (83.63 seconds for retail; 83.17 seconds for competing carriers).

[701] Bell Atlantic deviated from the standard by 3.84 seconds in June, 5.38 seconds in July, 8.05 seconds in August, and 7.69 seconds in September. Bell Atlantic Dowell/Canny Decl. Attach. D at 73, 85, 97 (metric MR-1-

Bell Atlantic fails to process requests to create trouble tickets in substantially the same time for competing carriers as it does for its retail operations.[702] Likewise, Bell Atlantic did not consistently meet the standard for canceling trouble tickets, but failed by only a fraction of a second each time.[703] Accordingly, in light of the slight deviations in response times and the lack of evidence that such deviations are impeding carriers' access to maintenance and repair OSS functions, we conclude that competing carriers are able to process maintenance and repair requests in substantially the same time as Bell Atlantic's retail operations. We are nonetheless prepared to take appropriate enforcement action should the deviations in response times become more commercially significant or widespread.

220. *Time to Restore*. We conclude that Bell Atlantic repairs trouble complaints for competing carriers in substantially the same time and manner that it repairs complaints from its own customers. The Commission has stressed that a BOC is obligated to repair trouble for a customer of a requesting carrier in substantially the same time that it takes to repair problems experienced by its own customers.[704] For example, because a reliable telephone line may be crucial for a business customer to conduct its business, the Commission has emphasized the importance of timely resolution of trouble reports from a competing carrier's business customers.[705]

221. We base our finding of nondiscriminatory restoration time on Bell Atlantic's performance data. From June through September 1999, for both resale and unbundled network elements, Bell Atlantic generally repaired trouble reported by customers of competing carriers faster than it repaired trouble reported by its own retail customers.[706] In fact, during this period

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01 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 2 (metric MR-1-01 for September 1999).

[702] We therefore reject AT&T's contention that these response times are "far longer" than Bell Atlantic's retail operations. AT&T Crafton/Connolly Aff. at para. 172.

[703] Although it met the standard in June and August, Bell Atlantic deviated from the standard by .96 of a second for July and .34 of a second for September. Bell Atlantic Dowell/Canny Decl. Attach. D at 73, 85, 97 (metric MR-1-04 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 2 (metric MR-1-04 for September 1999).

[704] *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20693.

[705] *Id.*

[706] Bell Atlantic submits performance measurements that calculate the "mean time to repair," or average duration from receipt of a trouble report through its clearance. Bell Atlantic Dowell/Canny Decl. Attach. B at 57-59. *See also Performance Measurements NPRM*, 13 FCC Rcd at 12854 (discussing measurement of the average time to restore). For resale, Bell Atlantic took less time to repair reported loop and central office trouble from its competitors' customers than its own retail customers in each month in June through September 1999. *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 77, 89, 101 (metrics MR-4-01, MR-4-02, MR-4-03 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 6 (metrics MR-4-01, MR-4-02, MR-4-03 for September 1999). Similarly, for the mean time to repair unbundled network elements, Bell Atlantic performed better for its competitors' customers than for its own retail customers in June, July, and September 1999. *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 82, 94 (metric MR-4-01 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 11 (metric MR-4-01 for September 1999). Although Bell Atlantic's performance deviated slightly for the mean time to repair loops in August (26.22 hours for competing carriers

Bell Atlantic consistently cleared a higher percentage of trouble reports within 24 hours for competitors than for itself.[707] In addition, customers of competing carriers were out of service for substantially the same amount of time that Bell Atlantic's retail customers were out of service.[708] This level of performance is substantial evidence that Bell Atlantic responds to trouble reports and restores service in substantially the same time and manner for competing carriers as for itself. Although some commenters assert generally, without evidentiary support, that Bell Atlantic fails to address competitors' trouble tickets in a timely and efficient manner,[709] they do not dispute the performance data submitted by Bell Atlantic and verified by the New York Commission. Given this, we find that the performance measurements provide compelling evidence that Bell Atlantic responds to competitors' trouble complaints in substantially the same time and manner that it responds to its own customers' complaints.

222. *Quality of Work Performed.* We also find that Bell Atlantic demonstrates that it performs maintenance and repair work for customers of competing carriers at the same level of quality that it performs repair work for its retail customers. In order to compete effectively in the local exchange market, competing carriers must be able to access maintenance and repair

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versus 25.32 hours for Bell Atlantic retail), given that the difference is slight and did not cause a statistically significant difference in the total mean time to repair, we find that Bell Atlantic repaired unbundled network element troubles in substantially the same time for itself and for competing carriers. With respect to special services, Bell Atlantic met the standard each month from June through September 1999, for both resale and unbundled network elements. *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 77, 82, 89, 94, 101, 106 (metric MR-4-01 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 6, 11 (metric MR-4-01 for September 1999).

[707] For both resale and unbundled network elements, Bell Atlantic cleared a higher percentage of trouble reports within 24 hours for competing carriers than for itself in each month from June through September 1999. *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 77, 82, 89, 94, 101, 106 (metric MR-4-04 for June, July, and August 1999 for POTS and Special Services); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 6, 11 (metric MR-4-04 for September 1999 for POTS and Special Services).

[708] For resale POTS services, from June through September 1999, a smaller percentage of competing carriers' customers were out of service at the 4-hour, 12-hour and 24-hour measured intervals than Bell Atlantic's retail customers. *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 77, 89, 101, (metrics MR-4-06, MR-4-07, MR-4-08 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 6 (metrics MR-4-06, MR-4-07, MR-4-08 for September 1999). For POTS service through unbundled network elements, the results were more varied. From June through September, although a smaller percentage of competing carriers' customers were out of service after 4 hours and after 24 hours compared with Bell Atlantic's retail customers, a higher percentage were out of service at the 12-hour interval. *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 82, 94, 106, (metrics MR-4-06, MR-4-07, MR-4-08 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 11 (metrics MR-4-06, MR-4-07, MR-4-08 for September 1999). Considering the performance data for the 4-hour, 12-hour and 24-hour intervals collectively, we do not consider the slight deviations in percent of troubles out of service at the 12-hour interval indicative that Bell Atlantic takes longer to repair trouble for customers of its competitors than for its own retail customers. Similarly, with respect to specials, a statistically significant percent of Bell Atlantic's competitors' resale customers were out of service after four hours, but not after 24 hours. *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 77, 82, 89, 94, 101, 106, (metrics MR-4-06, MR-4-08 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 6, 11 (metrics MR-4-06, MR-4-08 for September 1999).

[709] *See* Covad Conley/Poulicakos Decl. at para. 10; Prism Comments at 4, 13.

functions in a manner that enables them to provide service to their customers at a level of quality that matches the quality of service that Bell Atlantic provides its own customers.[710] A competing carrier's customer may become dissatisfied if the customer experiences frequent service problems, especially repeated troubles. In determining the quality of maintenance and repair work performed by Bell Atlantic for competing carriers, we examine the rate of trouble reported by customers of competing carriers as compared with Bell Atlantic's own retail customers, as well as the rate of repeat reports of trouble.[711]

223. Bell Atlantic's performance data reveals that customers of competing carriers reported a lower rate of network trouble than Bell Atlantic's retail customers. From June through September 1999, for both resale and unbundled network elements, the rate of loop trouble reported was lower for competing carriers than for Bell Atlantic's retail operations.[712] Similarly, during the same period, the rate of central office trouble reported for carriers' resale customers was lower than, or equal to, Bell Atlantic's, and the rate for customers served through unbundled network elements was just slightly higher for competing carriers than for Bell Atlantic's retail operations.[713] This level of performance, coupled with the lack of any conflicting data or claims of inferior maintenance in the record, indicates that Bell Atlantic is not discriminating against competing carriers in routine network maintenance and repair functions.

224. Similarly, performance data on the rate of repeat trouble reports indicates that Bell Atlantic repairs trouble for competitors at the same level of quality that it provides to itself, or better. Consistently from June through September 1999, for both resale and unbundled network elements, a lower percentage of competitors' customers reported repeat trouble within 30 days

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[710] *See Second BellSouth Louisiana Order*, 13 FCC Rcd at 20694.

[711] *See* Bell Atlantic Dowell/Canny Decl. Attach. B at 53, 60. In prior orders the Commission specifically instructed BOCs to provide performance data showing repeat trouble reports. *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20694 (using the repeat trouble report rate as an indicator of a BOC's performance in the initial resolution of trouble reports); *Ameritech Michigan Order*, 12 FCC Rcd at 20657. *See also Performance Measurements NPRM*, 13 FCC Rcd at 12854 (indicating that the percentage of access lines that receive trouble tickets in a thirty-day period is indicative of the quality of network components supplied by the incumbent LEC, and the frequency of repeat troubles in a thirty-day period reflects the quality of the incumbent LEC's initial resolution of troubles).

[712] *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 77, 82, 89, 94, 101, 106 (metric MR-2-02 for June, July and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 6, 11 (metric MR-2-02 for September 1999). For specials, although the rate of trouble reported was higher for for competing carriers' resale customers than for Bell Atlantic each month, we do not consider the disparities indicative that Bell Atlantic overall is providing competing carriers with access to resale services at a level of quality inferior to its own.

[713] *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 77, 82, 89, 94, 101, 106 (metric MR-2-03 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 6, 11 (metric MR-2-03 for September 1999). With respect to the rate for central office trouble reported, the June rate for competing carriers (0.19 percent) exceeded Bell Atlantic's retail rate (0.16 percent) only slightly, followed by similar performance in July, August and September. Bell Atlantic Dowell/Canny Decl. Attach. D at 82, 94, 106 (metric MR-2-03 for June, July, and August 1999); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 11 (metric MR-2-03 for September 1999). We do not find these disparities dispositive of inferior quality of access provided by Bell Atlantic.

than Bell Atlantic's retail customers.[714] Given the lack of conflicting data, we find that Bell Atlantic's performance on this measurement provides compelling evidence that the company is not discriminating in the quality of the repair work that it performs for competing carriers.

225. We further find that Bell Atlantic has implemented processes to safeguard against premature closing of trouble tickets. KPMG initially found that some Bell Atlantic technicians were closing out loop trouble tickets even if the customer was not back in service if they found no trouble at the specific dispatch location (*e.g.*, the outside plant or the central office) without checking other locations.[715] For these misdirected dispatch situations, carriers would need to open a second trouble ticket to resolve the problem. In response to KPMG's finding, Bell Atlantic implemented a new process under which Bell Atlantic's Regional CLEC Maintenance Center will open a second trouble ticket, either automatically (if the technician finds a problem on the line) or after it obtains the carrier's permission to issue a second ticket (if the technician finds no problem on the circuit). Although commenters allege that Bell Atlantic generally closes out trouble tickets without resolving the problem,[716] we are unable to conclude, based on this record, that the process provided to competing carriers differs from Bell Atlantic retail operations or that Bell Atlantic is failing to adhere to the new procedures.[717] Rather, the fact that competing carriers are reporting a lower rate of repeat trouble than Bell Atlantic's retail customers strongly signifies that Bell Atlantic is not closing out trouble tickets in a discriminatory manner.

i. Billing

226. We find that Bell Atlantic provides nondiscriminatory access to its billing functions. Competing carriers need access to billing information to provide accurate and timely bills to their customers.[718] Bell Atlantic is obligated to provide competing carriers with complete and accurate reports on the service usage of competing carriers' customers in substantially the same time and manner that Bell Atlantic provides such information to itself.[719] To do so, Bell Atlantic provides competing carriers with billing information through Daily Usage Files (DUFs) and carrier bills.[720] DUFs itemize daily usage records for competing carrier customers, while carrier bills serve as a monthly invoice that incorporates charges for all of the products and

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[714] *See* Bell Atlantic Dowell/Canny Decl. Attach. D at 77, 82, 89, 94, 101, 106 (metric MR-5-01 for June, July, and August 1999 for POTS and Special Services); Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 6, 11 (metric MR-5-01 for September 1999 for POTS and Special Services).

[715] KPMG Final Report at M&R5 V-76-77. *See* New York Commission Comments at 52; TRA Comments at 11 n.37 (noting KPMG's findings).

[716] *See* AT&T Crafton/Connolly Aff. at para. 177; Prism Comments at 13-14; Covad Conley/Poulicakos Decl. at paras. 86-87 (contending that Bell Atlantic's technicians often improperly close trouble tickets).

[717] *See* New York Commission Comments at 52 (noting Bell Atlantic's claim that it also took longer to clear trouble tickets when its own technicians were dispatched in error).

[718] *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20698.

[719] *Id.*

[720] Bell Atlantic Dowell/Canny Decl. at para. 102.

services provided to a competing carrier by Bell Atlantic.[721] These are the same mechanisms that Bell Atlantic uses to provide billing information to its retail operations.[722]

227. Like the New York Commission, we conclude that Bell Atlantic demonstrates that it provides nondiscriminatory access to its billing functions on the basis of the available Carrier-to-Carrier metrics and the KPMG Final Report.[723] We find that the performance standards set by the New York Commission and developed in conjunction with Bell Atlantic and competing carriers are appropriate measures of Bell Atlantic's ability to provide competing carriers with DUFs and carrier bills in substantially the same time and manner that Bell Atlantic provides such information to itself.[724] The Carrier-to-Carrier metrics indicate that, during the period from July to September 1999, Bell Atlantic's actual commercial performance consistently exceeds these standards.[725] In addition, KPMG found Bell Atlantic's wholesale billing systems, processes, and operational support satisfactory.[726] After testing seven bill types in eight billing cycles and making over 2,100 test calls to generate records, KPMG found that Bell Atlantic properly reported daily usage and applied correct rates and discounts to bill elements.[727]

228. Although several commenters allege problems with Bell Atlantic's billing systems, we conclude that these allegations do not warrant a finding that Bell Atlantic fails to provide nondiscriminatory access to its billing functions. AT&T alleges that Bell Atlantic does not

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721 Bell Atlantic Dowell/Canny Decl. at para. 102.

722 Bell Atlantic Application at 46; Bell Atlantic Miller/Jordan Decl. at paras. 80-81.

723 *See* New York Commission Comments at 53-54.

724 Specifically, the standard adopted by the New York Commission for the Carrier-to-Carrier metrics requires that Bell Atlantic transmit 95 percent of its DUFs for resale and UNEs to competing carriers within four business days after creation and send 98 percent of its carrier bills to competing carriers within ten business days of the bill date. Bell Atlantic Dowell/Canny Decl. Attach. B at 66, 70 (Carrier-to-Carrier Guidelines listing performance standards); *NYPSC Guidelines Order* App. 2 at 5 (describing the development of billing performance standards).

725 Bell Atlantic Dowell/Canny Decl. Attach. D at 85, 97; Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 2 (listing Bell Atlantic performance for metric BI-1-02 in July, August, and September 1999 as 98.78, 99.60, and 99.59 percent, respectively; listing Bell Atlantic performance for metric BI-2-01 in July, August, and September 1999 performance as 99.84, 99.54, and 98.71 percent, respectively). The New York Commission has yet to adopt a standard for billing accuracy. Bell Atlantic Dowell/Canny Decl. Attach. B at 71; New York Commission Comments at 54. Nonetheless, we note that Bell Atlantic's billing accuracy performance, measured as the dollars adjusted for billing errors out of the total dollars billed, is comparable with Bell Atlantic retail in recent months. Bell Atlantic Dowell/Canny Decl. Attach. D at 85,97; Bell Atlantic Dowell/Canny Reply Decl. Attach. C at 2 (listing Bell Atlantic retail/competing carrier performance for metric BI-3-01 in July, August, and September 1999 as 98.67/96.66, 98.17/98.33, and 98.23/99.14 percent, respectively); *see also* Bell Atlantic Dowell/Canny Decl. Attach. B at 71 (describing the measurement of metric BI-3-01).

726 New York Commission Comments at 53-54 (noting that 81 percent of 287 test points were satisfied and 19 percent were satisfied after exceptions were resolved). *See generally* KPMG Final Report at BLG IV-1-126.

727 KPMG Final Report at Executive Summary II-10.

provide competing carriers with complete billing information on a consistent basis.[728] The specific problems AT&T cites to support this argument, including difficulties with local usage file names and obtaining and processing local usage data, are not cited by any other commenter and are not supported by the Carrier-to-Carrier metrics or findings in the KPMG Final Report. Both CCA and Z-Tel argue that Bell Atlantic should alter its billing system to better meet their needs as competing carriers.[729] Although we require a BOC to demonstrate that it is providing equivalent access to billing information, we do not mandate the use of a particular billing system.[730] Accordingly, we reject CCA and Z-Tel's arguments. We also reject Adelphia, NALA, and TRA's allegations of double billing.[731] Although we believe that evidence of a double billing problem demonstrates that a BOC is not providing nondiscriminatory access to its billing functions, we find that there is no evidence in the record to support these commenters' assertions.[732] Similarly, we reject Z-Tel's allegation that Bell Atlantic refuses to provision service to residential customers that have outstanding balances on their Bell Atlantic retail accounts.[733] Because Z-Tel offers no data to support this position and no other commenters raise this issue, we find that the record does not support Z-Tel's allegation.

2. Combinations of Unbundled Network Elements

a. Background

229. In order to comply with the requirements of checklist item 2, a BOC must show that it is offering "nondiscriminatory access to network elements in accordance with the requirements of sections 251(c)(3)[.]"[734] Section 251(c)(3) requires an incumbent LEC to "provide, to any requesting telecommunications carrier . . . nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms and conditions that are just, reasonable, and nondiscriminatory."[735] Section 251(c)(3) of the Act also requires incumbent LECs to offer unbundled network elements to requesting carriers in a manner that

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728 AT&T Comments at 27; AT&T Crafton/Connolly Aff. at paras. 178-187; AT&T Crafton/Connolly Reply Aff. at paras. 100-102; AT&T Dec. 15 *Ex Parte* Letter at 58-61. *See generally* Bell Atlantic Nov. 24 *Ex Parte* Letter at 3-4 (refuting AT&T allegations regarding usage for originating toll free calls, provision of classification codes for UNE records, and provision of billing records for operator-assisted, collect, third-party, and directory assistance calls).

729 CCA Comments at 6-7 (arguing that reseller accounts should be moved to Bell Atlantic's wholesale billing systems); Z-Tel Comments at 22 (arguing that a "read-only" CD-ROM format is inadequate).

730 *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20723.

731 NALA Comments at 4; TRA Comments at 15-16 (alleging problems with service orders that are provisioned but not accounted for in Bell Atlantic's filing system, resulting in double billing of customers by Bell Atlantic and competing carriers); Adelphia Livengood Decl. at para. 18.

732 *See Ameritech Michigan Order*, 12 FCC Rcd at 20651.

733 Z-Tel Comments at 22.

734 47 U.S.C. § 271(c)(1)(B)(ii).

735 47 U.S.C. § 251(c)(3).